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ABSTRACT

A scale was developed and tested to measure metaphoric complexity in order to aid teachers in the selection and sequencing of young adult (YA) novels in the English curriculum. The development and testing of the scale involved two stages: (1) the development of a questionnaire to determine if differences in the metaphoric complexity of examples selected from YA novels were perceived by college educated readers, and (2) the testing of instrument reliability and the development of the metaphoric complexity scale from the responses of nine judges. Subsequently, three raters assessed the metaphoric complexity of 30 YA novels based on a scoring of five 250 word passages from each text. The grade levels of the novels were assessed on the basis of the Fry Readability Graph, and the two scores compared by a Spearman coefficient of correlation. The correlation was of low magnitude and not significant. Analysis of these data showed that, among the three raters, there was a high consistency in the application of metaphoric terminology, in the numerical values assigned individual occurrences of metaphoric language, and in the total metaphoric complexity estimates of the novels. (Author/HOD)

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Development and Validation of a Scale To Measure Metaphoric Complexity

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Abstract. The purpose of this investigation was to develop and test a scale to measure metaphoric complexity explicitly to aid teachers in the selection and sequencing of young adult (YA) novels in the English curriculum. The development and testing of the scale involved two stages: (1) the development of a questionnaire to determine if differences in the metaphoric complexity of examples selected from YA novels were perceived by college educated readers and (2) instrument reliability was tested and the metaphoric complexity scale developed from the responses of nine judges. Rater inter-correlation of the instrument was of high magnitude (.87 to .96).

Subsequently, three raters assessed the metaphoric complexity of 30 YA novels based on a scoring of five 250 word passages from each text. The grade levels of the novels were assessed on the basis of the Fry Readability Graph, and the two scores compared by a Spearman coefficient of correlation. The correlation was of low magnitude (rho = -.27) and not significant. Analysis of these data showed that, among the three raters, there was a high consistency in: (1) the application of metaphoric terminology, (2) the numerical values assigned individual occurrences of metaphoric language, and (3) the total metaphoric complexity estimates of the novels.

DEVELOPMENT AND VALIDATION OF A SCALE

TO MEASURE METAPHORIC COMPLEXITY

Since the 1920's educators have attempted to estimate the difficulty of reading materials for the purpose of selecting books which could be "understood" by readers. These early estimates of readability were based, as they sometimes are today, upon professional judgment, tests of comprehension, or readability formulas. Generally, the formulas were based upon two main factors--the number of syllables and the number of sentences in a 100 word sample passage. In 1935, however, Gray and Leary recognized that many factors including format, general features of organization, style of expression, and content, all contribute to reading ease or difficulty.

From an opinion survey Gray and Leary (1935) compiled a list of 288 factors contributing to reading difficulty. They tested the reading skills of 1,690 adults, who had completed various levels of education from elementary school to college, using selected items from books, magazines, and newspapers. Then they analyzed the test items to identify elements which related most closely to readability. In all, some 80 variants of expression were discovered. More than 20 of these elements were found to be statistically significant in relationship to reading difficulty. Among the elements were: explicit sentences, length of sentence, simple sentences, and words not known to 90 percent of sixth grade pupils.

Although not statistically significant, Gray and Leary (1935) found figurative language to be among 25 factors most likely to contribute to reading difficulty. While they were convinced that figures of speech presented minimal difficulty for "good readers" ($r = .088$), they found evidence that the strength of the relationship with reading difficulty was more significant for "poor readers" ($r = -.377$). They believed, moreover, that figurative language

warrented further investigation because it correlated fairly closely (r = -.233) with reading difficulty and "relatively little with other elements."

In the more than forty years since the publication of Gray and Leary's What Makes a Book Readable (1935) researchers such as Brinton and Danielson (1958), Bormuth (1969), and Entin and Klare (1978), have investigated various elements related to readability. For example, Brinton and Danielson (1958) identified "figures of speech" among the 20 elements which they submitted to a factor analysis. Factor three involved stylistic devices such as asides, figures of speech, and first person pronouns. They concluded from their investigation that a profitable course in reading research would be to determine if the inclusion of these stylistic factors in a readability formula might result in better prediction.

Subsequently, Entin and Klare (1978) discovered more than 250 factors related to readability. They analyzed variables from studies conducted by Caylor, Sticht, Fox and Ford (1972); Bormuth (1969); and Coleman (1971). Caylor, Sticht, Fox, and Ford (1972) identified 35 variables; Bormuth (1969) discovered numerous variables only 21 of which were analyzed by Entin and Klare; and Coleman (1971) found 32. Essentially, these studies revealed that multiple factors including word difficulty, sentence difficulty, independent clause frequency, word frequency, letter redundancy, letters per syllable, syllables per word, parts of speech, etc. are all factors in readability. However, since Gray and Leary's identification of figurative language among those elements related to reading difficulty, its relationship to readability has not attracted serious research attention. In part, further investigation of the relationship may have been discouraged by Gray and Leary (1935) who concluded that "unless a person is sensitive to figurative style he probably will err in his count of figures of speech."

In 1968, however, Leondar's conceptualization of a scale of figuration

provided the framework within which the relationship of figurative language to readability might be explored. She proposed a scale of figuration from the more easily interpreted simile and metaphor to the more complex symbol, myth and proverb. Leondar argued that metaphor functions as an integrative vehicle linking various cognitive realms and encourages both mental agility and creativity among readers. Dividing metaphoric language into two general classes--metaphor and symbol, she recognized the differences between the two in level of increasing difficulty and proposed a graduated scale based upon a logical analysis of specific examples of metaphoric language. She identified a Scale of Figuration ranging from what she called "born literal" to "achieved literal" meaning which formed the two extreme points at either end of the scale. Metaphor, which she labeled "born literal," was seen as more easily paraphrased than symbol which occupied a mid-right position on the scale and which she described as "achieved literal." She further divided metaphor into several sub-classes, each of which was based upon examples of both metaphor and simile which exhibited similar properties. For example, what Leondar called the "closed attributive metaphor" bordered upon literal comparison as in the example: ". . . St. Agnes charmed maid,/Rose like a missioned spirit.. . ." (Keats, "The Eve of St. Agnes").

The symbol which occupied the right half of Leondar's Scale of Figuration included as subclasses: (1) symbol, (2) myth, and (3) proverb. These classes represented an increasing paraphrasability and a movement toward what she called the "achieved literal." This meant that in myth and proverb the vehicle (object) and the tenor (idea) has become inextricibly intertwined so that the reader is theoretically unaware of the figurative experience and accepts the vehicle as the literal equivalent of the idea.

Leondar suggested that the metaphorical tension between tenor (idea) and vehicle (object) increased toward the center of the scale marked by the fusion

metaphor and grew less intense as the figure moved toward the symbol, myth, and proverb. In addition, she suggested that the entrenchment of the figure in context is greatest at the center of the scale marked by what she called the "fusion metaphor" and symbol and grows increasingly more independent as the figure moves toward the myth or proverb. In brief, Leondar's theory of varying levels of increasing tension between tenor and vehicle and the resultant entrenchment of the figure in context became the conceptual basis of the metaphoric complexity scale developed in my investigation.

METHOD

Instrument Development

To develop and validate a scale to measure metaphoric complexity I constructed an instrument to determine: (1) if educated readers did perceive differences in the complexity of metaphoric language ranging from simple to complex, and (2) if they would consistently rate specific classes and occurrences of metaphoric language on a numerical scale from simple (1) to complex (5).

In developing the instrument I elected to use young adult (YA) novels because they are popular materials commonly employed in the English curriculum of junior and senior high schools; they are frequently considered "easy to read;" and they generally range in readability estimates from approximately grades 4 to 8. Initially, I identified all occurrences of metaphoric language in seven YA novels which ranged in readability estimates from grades 4 to 6: A Day No Pigs Would Die (4), Sounder (6), Durango Street (4), Tuned Out (6), The Pigman (5), Johnny Tremain (4), and One Fat Summer (5). Second, I classified all occurrences of metaphoric language as either metaphor, simile, personification, paradox, allusion, symbol, analogy, or hyperbole according to definitions in specified sources. Third, I selected a stratified random sample of five occurrences of metaphoric language from each of the eight classes with the exception of the "paradox." An examination of all passages of metaphoric language

from the novels included only three examples of paradox--all of which were included on the questionnaire. The completed instrument included a total of 38 occurrences of metaphoric language.

Instrument Reliability and Development of the Metaphoric Complexity Scale

The development of the metaphoric complexity scale involved two stages: (1) the questionnaire developed from the seven sample novels was used to determine if differences in the metaphoric complexity of examples were perceived by 28 college educated readers and (2) the instrument's reliability was tested with nine judges and the metaphoric complexity scale developed from their responses.

In stage one 28 college educated readers of diverse backgrounds judged differences in the complexity of 38 occurrences of metaphoric language selected from the YA novels. Among the readers were teachers of English, early childhood education, elementary and intermediate grades, special education, business education, social studies, physical education, biology, and music. These individuals were asked to rate the complexity of the metaphoric examples from one to five on a numerical scale as "simple," "moderately simple," "average," "moderately complex," or "highly complex."

An analysis of the results revealed that responses tended to cluster toward either end of the evaluative scale. For example, if "moderately simple" and "simple" responses were grouped together, 60 to 93 percent of the readers agreed that the items were either "moderately simple" or "simple." In addition, on the upper end of the scale (those items rated 4 or 5) between 64 to 72 percent of the respondents agreed that the items were either "moderately complex" or "highly complex." Among the 28 adult readers, whose responses to the occurrences of metaphoric language are seen in Table 1, there was general agreement on 21 of the items included on the questionnaire. Thus, I concluded that within this group educated readers did perceive differences in the complexity of metaphoric

language in these passages, and that they were relatively consistent in rating the specific classes and occurrences of metaphoric language.

In stage two the reliability of the instrument was tested and the metaphoric complexity scale developed from the responses of nine judges. The questionnaire was submitted to junior and senior high school English teachers, college English teachers, English education and Reading Specialists. To determine the reliability of the instrument the judges' ratings of the metaphoric examples were submitted to an analysis which considered the reliability of raters across the 38 item inventory. Analysis of the objectivity (inter-judge correlation) of each item on the instrument showed that among the nine judges there was a high reliability on 19 of the items. One additional item, however, was included because raters were in high agreement. The inter-judge reliabilities for the 20 items used in developing the metaphoric complexity scale are seen in Table 2.

The mean of the judges' responses to each of the 20 items was calculated as seen in Table 3. Next, the responses to the 20 item inventory were grouped according to the definitions from selected sources as examples of metaphor, simile, personification, analogy, allusion, paradox, hyperbole, or symbol. Last, the average numerical score was calculated for each item in a given set of the grouped items as seen in Table 4. The mean for each of the grouped items became the numerical value for the specific class on the metaphoric complexity scale.

To test the utility of the metaphoric complexity scale seen in Table 5, I selected 30 novels recommended for young adults in sources such as Gateways to Readable Books , Good Reading for Poor Readers , curriculum guides in ERIC, The Fearon Pitman Development Library , and Recommended Language Arts Guides , 7-12 . The first step in determining the metaphoric complexity of these novels was the selection of five 250 word passages which I chose at random from each novel by a lottery method. Second, I read each passage carefully identifying and marking examples of metaphoric language. Third, I coded all examples of

metaphoric language according to the stipulated definitions as metaphor, simile, personification, allusion, hyperbole, analogy, paradox, or symbol. Then, I assigned a numerical value to each of the examples based on the metaphoric complexity scale. The sum total of all examples represented the metaphoric complexity of the YA novel. In all, I identified 384 occurrences of metaphoric language in the sample passages from the novels. These passages were then submitted to two other co-raters (university English professors whose areas of specialization included poetry). Each independently coded the 384 occurrences of metaphoric language using the stipulated definitions. Each example was then rated according to the metaphoric complexity scale.

In addition to the metaphoric complexity assessments, I assessed each of the novels on the basis of Fry's "Graph for Estimating Readability--Extended." The procedure included: (1) selecting three 100 word passages, (2) counting the total number of syllables and sentences in each passage, (3) determining the average number of sentences and syllables, and (4) entering the graph at the correct level for number of syllables and sentences and plotting the point idicative of the approximate grade level.

RESULTS

In examining the co-raters' identification and scoring of the occurrences of metaphoric language in the novels, I discovered differences in the labeling of analogy and simile both of which rated at 2.1 on the metaphoric complexity scale. For example, the item "He was hit accidentally with something about as solid as a big wrench" was identified by two raters as simile and by one rater as analogy. Another (The new wheels had spokes that were broad and curved, like the blades of a fan) was also identified by the raters as either analogy (2.1) or simile (2.1). In addition, symbols, perhaps the most difficult examples to identify apart from context, were sometimes identified as metaphor or failed to receive a label from the rater. The raters, on the other hand, easily identified classes of simile

and metaphor. Among the three raters unanimous agreement existed on the labeling or classifying of 182 exampes of metaphor and 27 examples of simile. Of the 384 passages of metaphoric language, a total of 209 occurrences of metaphor and simile were rated identically by the three co-raters.

Inter-correlation among the three raters (Table 6) was of high magnitude especially between raters one and three (.96). The high correlation (.87 to .96) among the three raters showed that individuals with similar background and knowledge in the use of metaphor can reliably classify and rate occurrences of metaphoric language according to specified definitions and the scale of metaphoric complexity.

Metaphoric Complexity and Readability

The 30 YA novels were rank ordered according to their metaphoric complexity scores. A similar ranking of the novels was obtained based on the Fry Readability scores. Both the scores and rankings of the novels on the metaphoric complexity scale and the Fry Readability graph are shown in Table 7. A Spearman Rank Order coefficient was determined according to the protocols of the SPSS computer package (Nie, Hull, Jenkins, Steinbrenner, and Bent. Statistic Package for the Social Sciences. McGraw-Hill, 1982). The resulting correlation was of low magnitude and not significant (rho = -.27). Furthermore, the direction of the relationship, if any, was negative. Although not statistically significant, the probability is that in this investigation higher readability was associated to some small extent with low metaphoric complexity.

The low magnitude of the coefficient of correlation (-.27) is important, however, because it provides statistical support for the idea that the metaphoric scale measures a distinctly different aspect of the novel from that measured by the readability formula. Furthermore, the high correlation among the metaphoric complexity estimates by the three raters (.87 to .96) shows the metaphoric complexity scale to be independent of the individual rater.

DISCUSSION

Despite the importance which Gray and Leary (1935) attributed to metaphoric language as a factor related to reading difficulty, researchers have done little to investigate the relationship. Perhaps, like Gray and Leary, they assumed that readers would "err in their count of figures of speech." Whatever the reason, researchers have generally continued to pursue the more easily measured factors such as sentence length, number of syllables, vocabulary difficulty, number of prepositional phrases, number of personal pronouns, relative number of prefixes, suffixes, and inflectional endings, etc. This investigation, however, to develop and validate a scale to measure metaphoric complexity shows that readers perceive differences in the complexity of examples of metaphoric language and that they can consistently rate those examples on a numerical scale. It shows that among raters trained in the use of metaphoric language there is a high consistency in: (1) the application of metaphoric terminology, (2) the numerical vales assigned individual occurrences of metaphoric language, and (3) the total metaphoric complexity estimates of individual YA novels to which the metaphoric complexity scale is applied.

A readability estimate of grade level four or five on the Fry Readability Graph, which was once thought to be an adequate measure of the difficulty of a text, cannot be relied upon as a measure equivalen with metaphoric complexity. Indeed, some novels with similar readability scores reflect wide differences in metaphoric complexity as evidenced in Table 7. Specifically, metaphoric complexity scores varied from 7 to 44 in the 10 novels assessed at grade level five on the Fry Graph. For the nine novels assessed at grade four the range in metaphoric complexity varied from 12 to 52.

Generally speaking, an analysis of the novels revealed that they differ considerably in the use of metaphoric language from those almost devoid of metaphor to those which employ highly complex and sophisticated symbolism. Such a

contrast is seen when comparing Maia Wojciechowska's Tuned Out , assessed at grade level six on the Fry graph, with Judy Blume's Are You There God? It's Me, Margaret assessed at grade five. Tuned Out was found by both raters I and III to be the most metaphorically complex of the books. Its metaphoric complexity was assessed at 69.7 (Rater I) and 59.6 (Rater III). In the five pages sampled Rater I found 25 occurrences of metaphoric language including personification (7), metaphor (5), simile (1), hyperbole (3), allusion (2), and symbol (7). Rater III identified 23 occurrences of metaphoric language including: Metaphor (15), simile (1), hyperbole (1), and symbol (6). Based on the assessments of Raters I and III, this novel was the most metaphorically complex or most highly sophisticated YA novel when compared to others in the group.

Conversely, Are You There God? It's Me, Margaret, by Judy Blume ranked lowest metaphorically among the novels receiving metaphoric complexity esimates of 8, 6, and 8 respectively from the three raters. Among the five pages sampled from Blume's novel, two pages contained no metaphoric language. The remaining three pages included only four occurrences of metaphor each of which were rated on the metaphoric scale as two points. This novel ranked lowest (1.5) in metaphoric complexity while Tuned Out ranked highest (30). The readability estimates of grade five (Are You There God? It's Me, Margaret) and grade six (Tuned Out) do not reflect the broad range of difference identified by the three raters in assessing the metaphoric complexity of the two novels.

Although teachers want to select "readable" books, they may also want to encourage the development of mature interpretive skills in such techniques as metaphor, symbol or allegory. As this investigation reveals YA novels with basically comparable readability estimates may differ widely in the use of metaphor and symbol. Thus, a readability estimate may indeed fail to predict "true readability." The metaphoric complexity scale may then be an additional

and potentially useful aid for teachers in the selecting and sequencing of YA novels in the English curriculum.

TABLE 1

RESPONSES TO 38 ITEMS INCLUDED ON THE QUESTIONNAIRE ON THE COMPLEXITY OF METAPHORICAL LANGUAGE

N = number of responses
% = percentage of total population

ratings:		simple		mod. simple		average		mod. complex		highly complex		no opinion	
class	item	N	%	N	%	N	%	N	%	N	%	N	%
metaphor	1	16	57	4	14	5	18	2	7	--	--	--	--
paradox	2	11	39	6	21	7	25	2	7	--	--	2	7
personification	3	12	43	9	32	5	18	2	7	--	--	--	--
hyperbole	4	17	61	6	21	4	14	1	3	--	--	--	--
simile	5	13	46	8	29	4	14	3	11	--	--	--	--
allusion	6	6	21	4	14	5	18	11	39	2	7	--	--
analogy	7	3	11	8	29	4	14	4	14	1	3	--	--
personification	8	3	11	10	26	6	21	9	32	--	--	--	--
personification	9	12	42	8	29	5	18	3	11	--	--	--	--
allusion	10	6	21	7	25	6	21	6	21	2	7	1	3
paradox	11	1	3	7	25	6	21	8	29	4	14	2	7
analogy	12	8	29	11	39	7	25	--	--	2	7	--	--
allusion	13	3	11	4	14	11	39	7	25	3	11	--	--
metaphor	14	5	18	6	21	7	25	5	18	4	14	1	3
analogy	15	17	60	3	11	5	18	3	11	--	--	--	--
hyperbole	16	5	18	7	25	5	18	7	25	3	11	1	3
symbol	17	4	14	5	18	5	18	8	29	5	18	1	3
paradox	18	1	3	8	29	5	18	12	43	2	7	--	--

TABLE 1--Continued

metaphor	19	17	60	5	18	5	18	--	--	1	3	--	--
analogy	20	8	29	9	32	8	29	2	7	1	3	--	--
simile	21	16	57	5	18	6	21	1	3	--	--	--	--
personification	22	2	7	3	11	9	32	11	39	3	11	--	--
metaphor	23	8	29	14	50	4	14	2	7	--	--	--	--
simile	24	24	86	2	7	1	3	1	3	--	--	--	--
symbol	25	5	18	8	29	11	39	4	14	--	--	--	--
analogy	26	3	11	12	43	5	18	2	7	3	11	--	--
allusion	27	20	72	3	11	4	14	--	--	1	3	--	--
symbol	28	2	7	9	32	5	18	8	29	4	14	--	--
hyperbole	29	8	29	5	18	11	39	3	11	1	3	--	--
simile	30	2	7	2	7	5	18	11	39	7	25	1	3
hyperbole	31	17	60	5	18	4	14	2	7	--	--	--	--
simile	32	10	36	8	29	8	29	2	7	--	--	--	--
symbol	33	2	7	--	--	5	18	5	18	15	54	1	3
hyperbole	34	2	7	1	3	4	14	10	36	10	36	1	3
personification	35	8	29	12	43	5	18	3	11	--	--	--	--
metaphor	36	4	14	9	32	11	39	2	7	2	7	--	--
allusion	37	5	18	5	18	12	43	4	14	1	3	1	3
symbol	38	--	--	5	18	3	11	9	32	11	39	--	--

Note. Total number of responses may vary slightly because some judges failed to rate some items.

TABLE 2

INTER-JUDGE RELIABILITY ESTIMATES OF THE 20 MOST RELIABLE ITEMS OF THE METAPHORIC COMPLEXITY SCALE

class	item	rel.	class	item	rel.
personification	3	.60	paradox	11	.80
personification	9	.54	analogy	12	.73
allusion	10	.54	metaphor	14	.63
analogy	15	.89	analogy	26	.73
hyperbole	16	.60	simile	30	.63
paradox	18	.72	hyperbole	31	.72
metaphor	19	.80	hyperbole	34	.89
simile	21	.72	metaphor	36	.58
metaphor	23	.49	allusion	37	.62
simile	24	.63	symbol	38	.63

TABLE 3

RATINGS ON 20 ITEMS ON THE QUESTIONNAIRE ON THE COMPLEXITY OF METAPHORICAL LANGUAGE

Judges:		1	2	3	4	5	6	7	8	9		
class	item										total	mean
personification	3	2	1	3	1	3	2	1	1	1	15	1.6
personification	9	2	1	3	1	2	1	3	3	1	17	1.8
allusion	10	3	3	4	3	5	3	2	2	4	29	3.2
paradox	11	4	3	3	2	3	3	3	3	4	28	3.1
analogy	12	3	3	3	2	3	2	4	4	3	27	3
metaphor	14	1	2	1	2	1	2	3	3	1	16	1.7
analogy	15	1	2	2	1	1	1	1	1	1	11	1.2
hyperbole	16	3	1	2	1	1	2	1	1	3	15	1.6
paradox	18	4	4	5	5	5	3	5	5	4	40	4.4
metaphor	19	1	3	2	2	2	3	2	2	2	19	2.1
simile	21	1	2	3	1	1	1	2	1	1	13	1.4
metaphor	23	2	2	4	1	1	1	1	2	2	16	1.7
simile	24	2	2	3	1	1	1	2	3	1	16	1.7
analogy	26	1	3	2	2	1	2	3	2	2	18	2
simile	30	2	3	3	4	5	3	3	3	3	29	3.2
hyperbole	31	1	1	2	1	1	2	3	2	1	14	1.5
hyperbole	34	3	4	4	3	4	4	4	4	4	34	3.7
metaphor	36	2	3	2	2	1	3	4	3	3	23	2.5
allusion	37	4	4	5	4	5	3	3	5	4	37	4.1
symbol	38	4	5	4	4	5	3	5	5	3	38	4.2

TABLE 4

AVERAGE NUMERICAL VALUES FOR CLASSES OF METAPHORIC LANGUAGE GATHERED FROM THE RESPONSES OF 9 JUDGES TO EXAMPLES ON THE QUESTIONNAIRE ON THE COMPLEXITY OF METAPHORICAL LANGUAGE

No. = item number on the questionnaire
M = mean for the 9 responses

class	No.	M	No.	M	No.	M	No.	M	total	mean
personification	3	1.6	9	1.8	--	--	--	--	3.4	1.7
metaphor	14	1.7	19	2.1	23	1.7	36	2.5	8.0	2.0
analogy	12	3.0	15	1.2	26	2.0	--	--	6.2	2.1
simile	21	1.4	24	1.7	30	3.2	--	--	6.3	2.1
hyperbole	16	1.6	31	1.5	34	3.7	--	--	6.8	2.3
allusion	37	4.1	10	3.2	--	--	--	--	7.3	3.7
paradox	11	3.1	18	4.4	--	--	--	--	7.5	3.8
symbol	38	4.2	--	--	--	--	--	--	4.2	4.2

TABLE 5

THE METAPHORIC COMPLEXITY SCALE

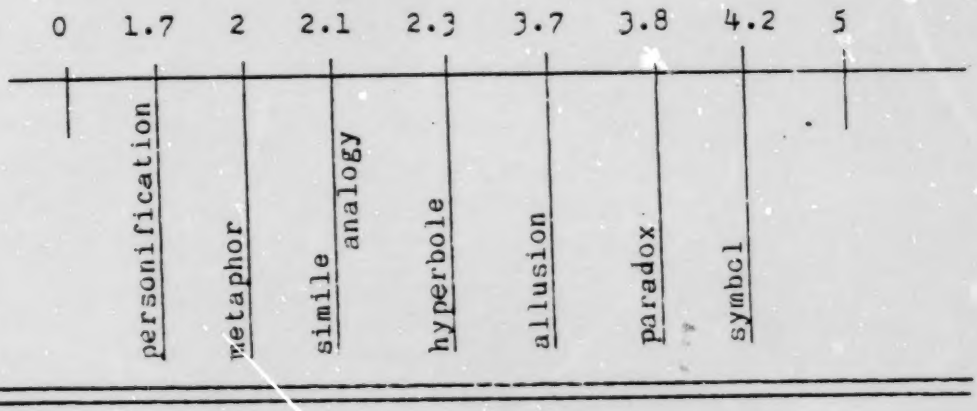

TABLE 6

PEARSON CORRELATION COEFFICIENTS
USED TO COMPARE THE METAPHORIC COMPLEXITY ESTIMATES
OF THREE INDEPENDENT RATERS

Met. Comp.	Rater I	Rater II	Rater III
Rater I	-----	.87	.96
Rater II	.87	-----	.90

*$p \leq .05$

TABLE 7

RELATIONSHIP OF METAPHORIC COMPLEXITY TO READABILITY

FRS = Fry readability score
MCS = Metaphoric complexity score
FRR = Fry readability rank
MCR = Metaphoric complexity rank

		FRS	MCS	FRR	MCR
1.	Across Five Aprils	9	29	29.5	19
2.	Jenny Kimura	9	28	29.5	18
3.	The Soul Brothers and Sister Lou	8	25	28	15
4.	My Name Is Aram	7	14	26	7.5
5.	Lisa, Bright and Dark	7	11	26	5
6.	Edgar Allan	7	7	26	1.5
7.	Tuned Out	6	53	22.5	30
8.	The Outsider	6	31	22.5	20
9.	Sounder	6	26	22.5	16.5
10.	Nilda	6	10	22.5	4
11.	Speedway Contender	5	44	15.5	26.5
12.	Go Ask Alice	5	36	15.5	21.5
13.	Where the Lilies Bloom	5	45	15.5	28
14.	Escape From Nowhere	5	23	15.5	13.5
15.	The Contender	5	23	15.5	13.5
16.	The Pigman	5	18	15.5	11
17.	A Kingdom in A Horse	5	16	15.5	9.5
18.	Island of the Blue Dolphins	5	14	15.5	7.5
19.	Then Again, Maybe I Won't	5	9	15.5	3
20.	Are You There God? It's Me, Margaret.	5	7	15.5	1.5
21.	Hot Rod	4	52	6	29
22.	My Darling, My Hamburger	4	44	6	26.5
23.	Durango Street	4	43	6	25
24.	Johnny Tremain	4	42	6	24
25.	Jazz Country	4	38	6	23
26.	The Nitty Gritty	4	22	6	12
27.	Henry Three	4	16	6	9.5
28.	Hold Fast to Your Dreams	4	26	6	16.5
29.	That Was Then, This Is Now	4	12	6	6
30.	Boy Gets Car	3	36	1	21.5

Rho = (-.27)

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